

High Current Connector

PS2 Series



■ Features

1. Power/Signal Hybrid Connector

The Hybrid design saves space by combining power

and signal contacts together in one unit with dedicated power contacts to handle 100, 200 or 300 Amps.

2. Floating Structure

The structure allows up to ± 2.5 mm of float in the X and Y directions, which makes mating easier even when the mating position is not clearly visible.

3. Sequential Contact System

This series utilizes sequential contacts, the power contacts mate before the signal contacts. This prevents incomplete mating and also prevents hot swapping.

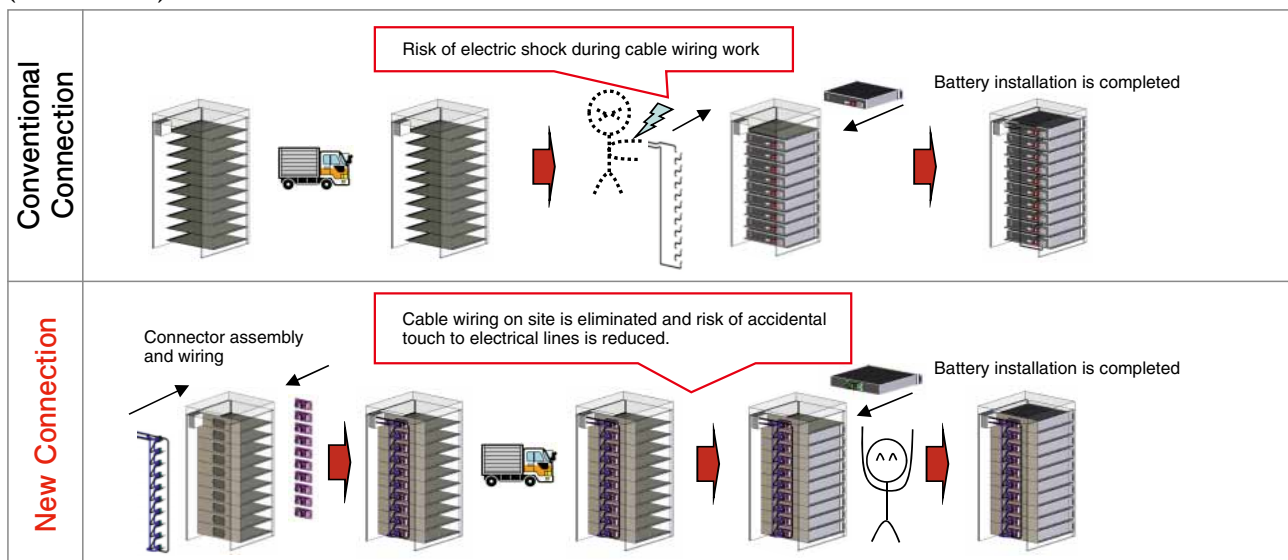
4. Finger Protection Structure

For added safety, the plug side (battery side) is designed to prevent shock hazard and provides for more user safety and security.

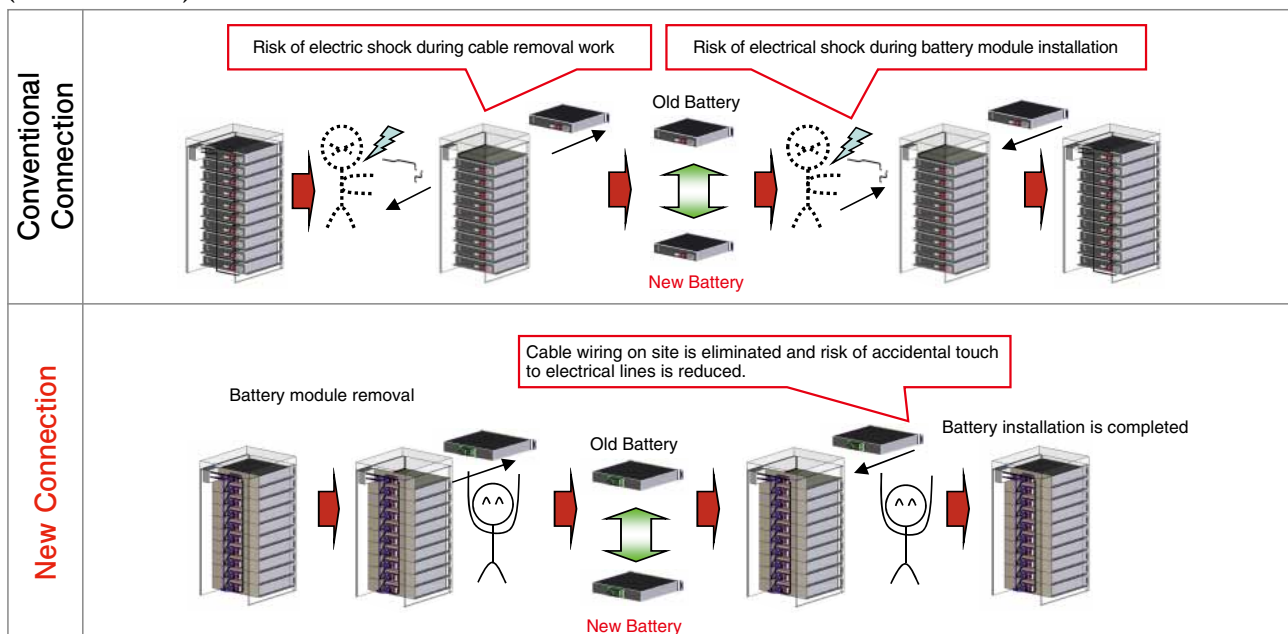
5. Plug-in Design

Its unique plug-in design provides enhanced safety features, reduced production costs related to its installation and the maintenance of high current units.

(Installation)



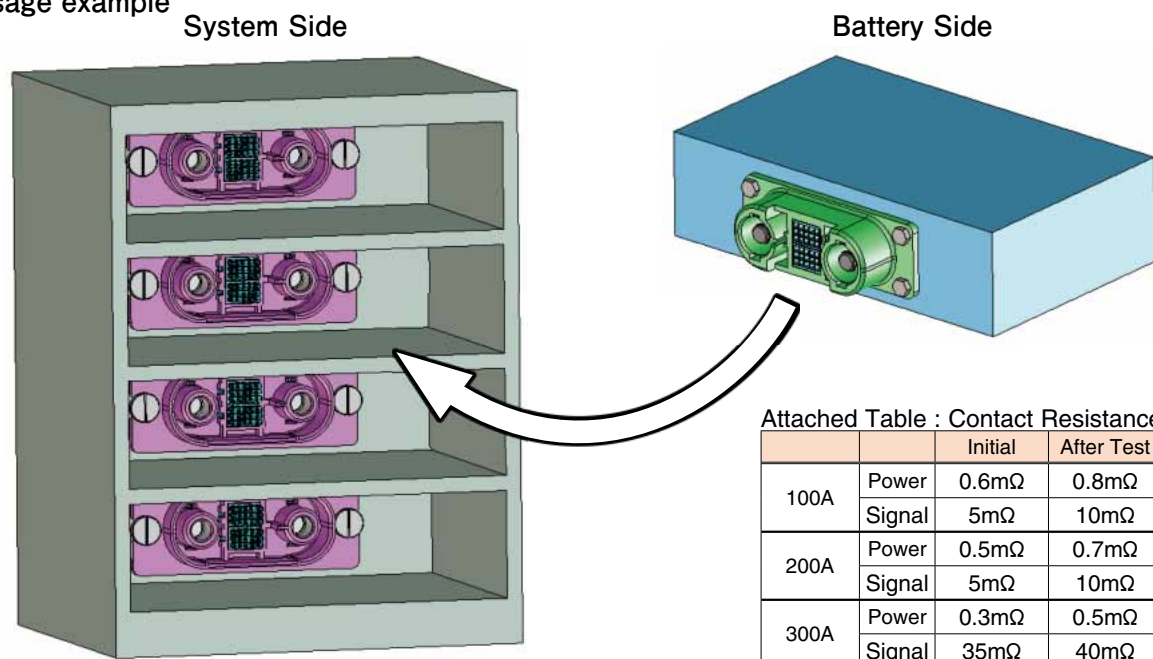
(Maintenance)



■ Applications

● Storage Battery, UPS

Usage example



■ Product Specifications

| Ratings | | Power Part | Derating curve, ambient temp 25℃ | Applicable cables | Signal Part | Operating Temp. Range |
|---------|---------|------------|-------------------------------------|-------------------|-------------|--------------------------|
| | Current | 300A | — | 150sq, 300MCM | 5A | -40~105℃ |
| | | 200A | 330A | 180sq, AWG#3/0 | | Storage Temp. Range |
| | | 100A | 175A | 38sq, AWG#2 | | -55~60℃ |
| | Voltage | 1,000V | | | 100V | |

| Item | Specifications | Conditions |
|--------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 1. Contact resistance | Attached table | Measured at DC 1 A Measured at DC 100 mA |
| 2. Insulation resistance | 5,000 MΩ or more | Measured at DC 250 V |
| 3. Withstand voltage | No flashover or breakdown | Power: Apply AC 2,000 V for one minute Signal: Apply AC 1,000 V for one minute |
| 4. Durability | Attached table | 50 mating cycles |
| 5. Shock resistance | No electrical discontinuity of 10 μs or more | Acceleration 490 m/s ² , duration 11 ms, half-sine wave, 3 times each for each of the 3 axes. |
| 6. Vibration resistance | No electrical discontinuity of 10 μs or more | 10 cycles in each of 3 axial directions at frequency 10-55 Hz, half amplitude 0.75 mm |
| 7. Temperature cycles | Attached table Minimum of 1,000 MΩ | Temperature: -40 → 105℃ Time: 30 → 30 min |
| 8. Salt water spray | No significant corrosion | 5% salt water spray concentration while keeping samples at 35℃ for 48 hours. |

■ Materials / Finish

● Receptacle

| Parts | Materials | Color/Finish | Remarks |
|------------------|-----------------------|--------------------|---------|
| Insulation case | Synthetic resin | Black | UL94V-0 |
| Power contact | Brass/Copper alloy | Silver plated | — |
| Contact spring | Copper alloy | Silver plated | — |
| Rotation stopper | Synthetic resin | Black | UL94V-0 |
| Crimp case | Synthetic resin | Black | UL94V-0 |
| Signal contact | Copper alloy | Gold plated | — |
| Floating screw | Stainless steel/Steel | —/Trivalent chrome | — |

● Plug

| Parts | Materials | Color/Finish | Remarks |
|------------------|--------------------|---------------|---------|
| Insulation case | Synthetic resin | Black | UL94V-0 |
| Power contact | Brass/Copper alloy | Silver plated | — |
| Rotation stopper | Synthetic resin | Black | UL94V-0 |
| Cap | Synthetic resin | Black | UL94V-0 |
| Crimp case | Synthetic resin | Black | UL94V-0 |
| Signal contact | Copper alloy | Gold plated | — |

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.

Please select from the product numbers listed in this catalog when placing orders.

Connector

PS2 – 2 W P / 6C / 6C

1 2 3 4 5 6

Crimp Case

PS2 – 6 PC

1 7 8

Crimp Contact

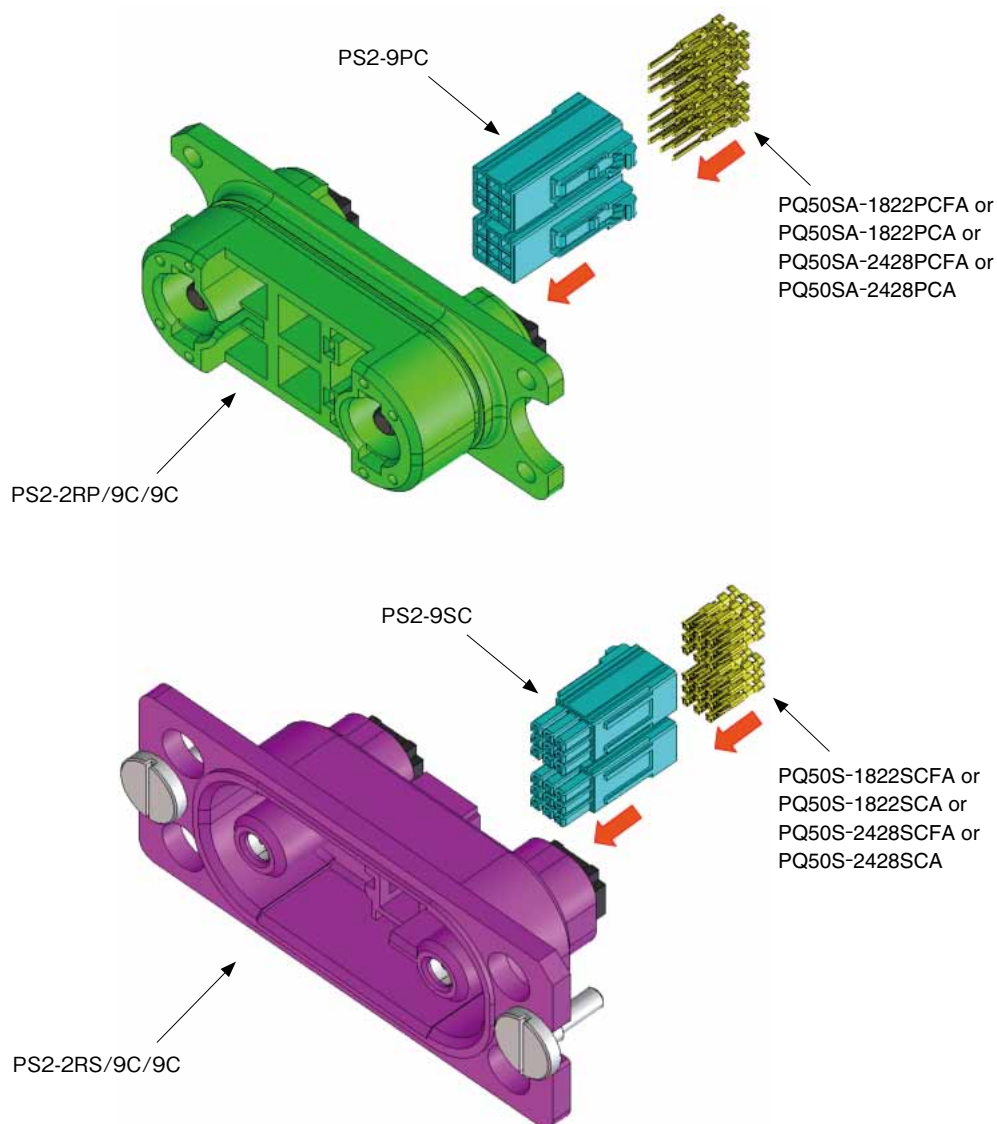
PS2 – 1618 P C F A

1 9 4 10 11 12

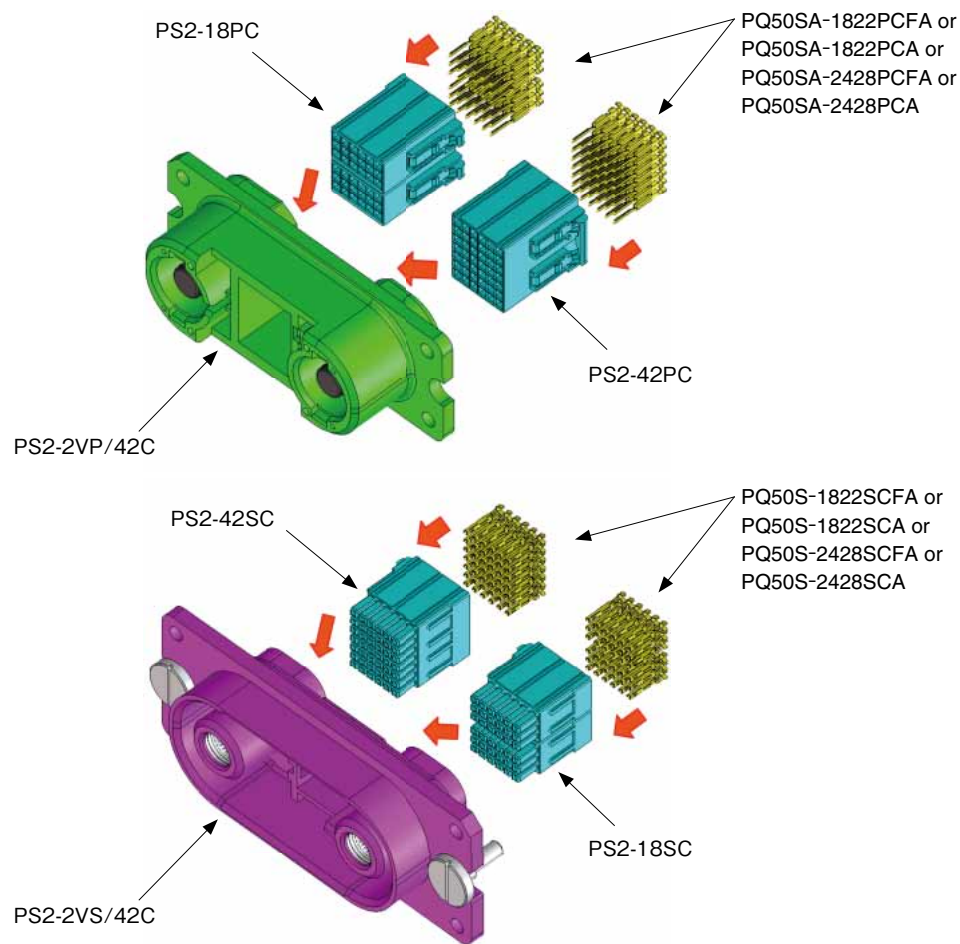
| | |
|----|-------------------------------------------------|
| 1 | Series name |
| 2 | No. of power contacts |
| 3 | R : 100A V : 200A W : 300A |
| 4 | P : Male S : Female |
| 5 | Signal contact block 1 |
| 6 | Signal contact block 2 |
| 7 | No. of signal contacts |
| 8 | PC : Male crimp case SC : Female crimp case |
| 9 | Applicable wires of signal contact 16-18 AWG |
| 10 | Crimp contact |
| 11 | F : Reel contacts None: Loose piece contacts |
| 12 | Gold plating |

Functional Diagram

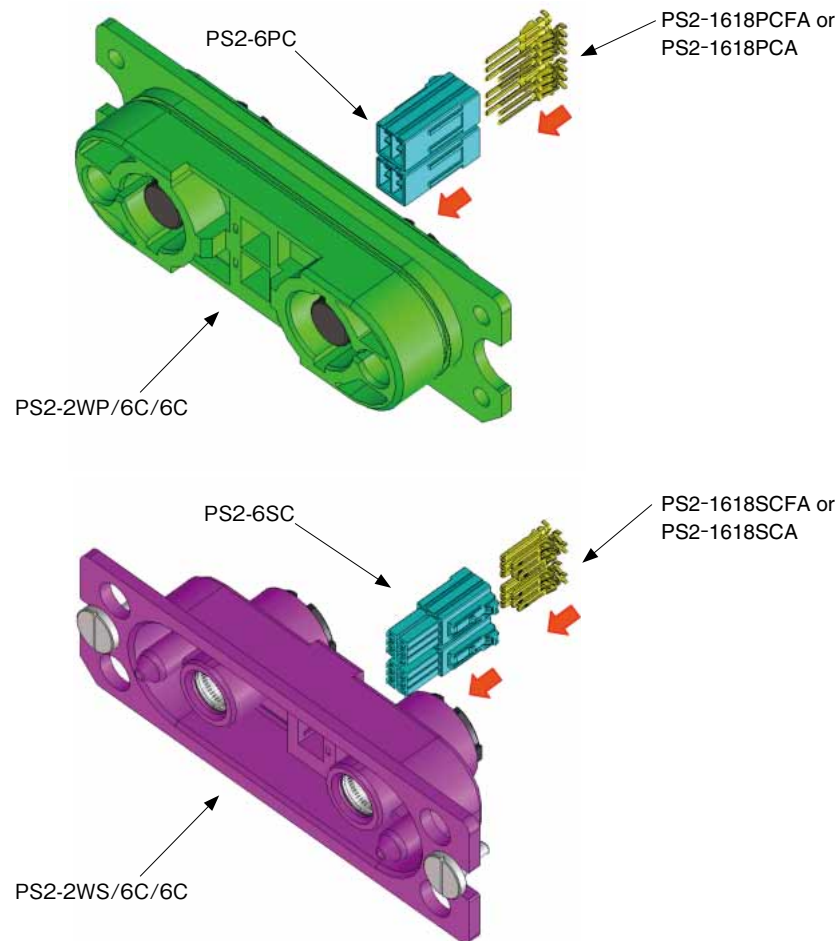
100A type



●200A type



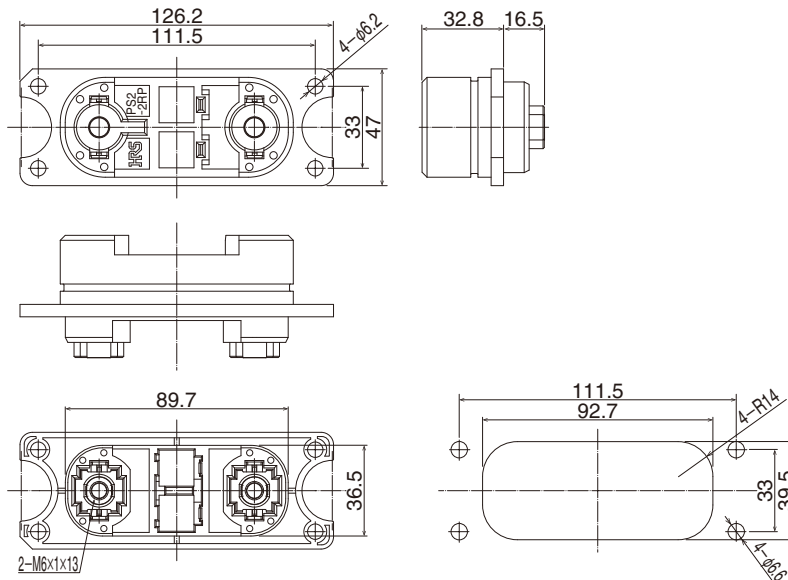
●300A type



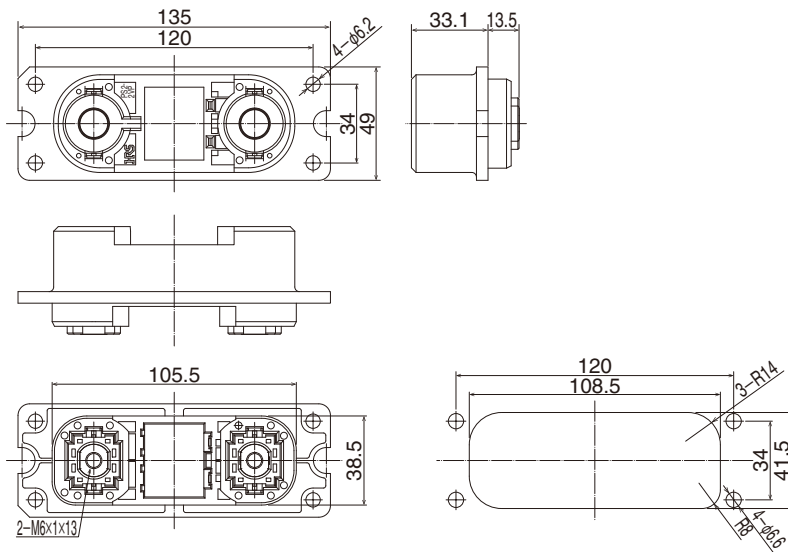
■ Plug

| Current | Part No. | HRS No. | Sales Unit | RoHS |
|---------|---------------|---------------|------------|-----------------------|
| 100A | PS2-2RP/9C/9C | 236-1036-0 00 | Each | <input type="radio"/> |
| 200A | PS2-2VP/42C | 236-1060-4 00 | | <input type="radio"/> |
| 300A | PS2-2WP/6C/6C | 236-1032-9 00 | | <input type="radio"/> |

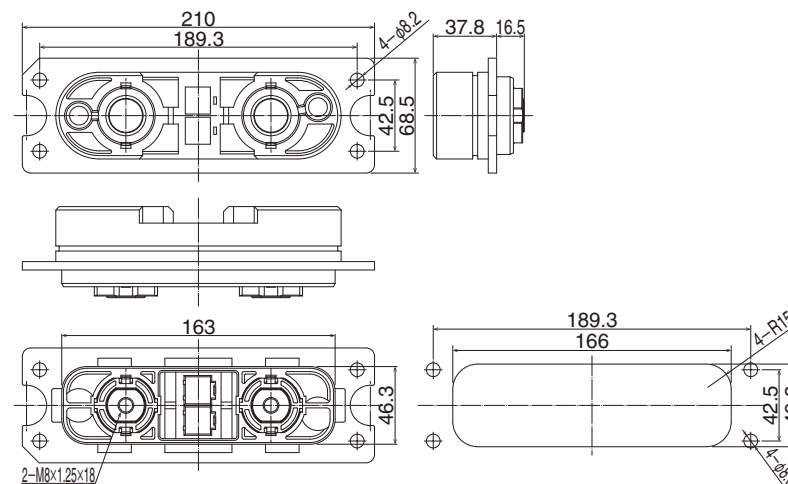
◇ 100A



◇ 200A



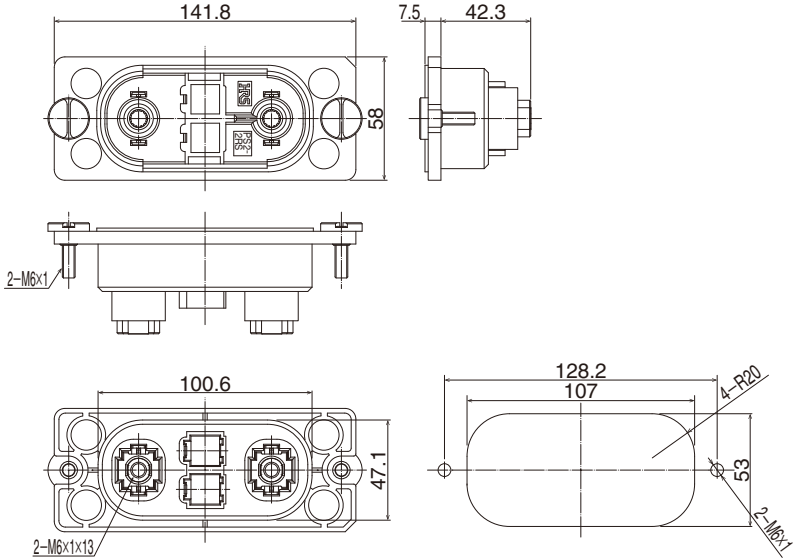
◇ 300A



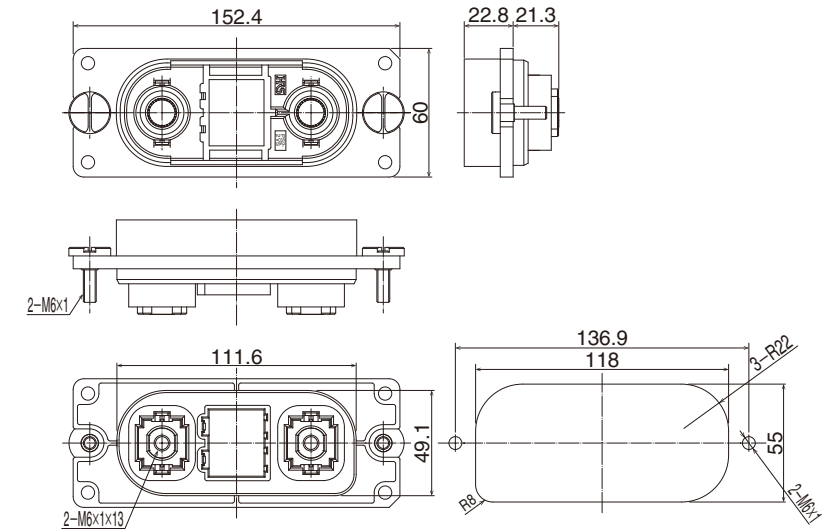
■Receptacle

| Current | Part No. | HRS No. | Sales Unit | RoHS |
|---------|---------------|---------------|------------|-----------------------|
| 100A | PS2-2RS/9C/9C | 236-1037-2 00 | Each | <input type="radio"/> |
| 200A | PS2-2VS/42C | 236-1046-3 00 | | <input type="radio"/> |
| 300A | PS2-2WS/6C/6C | 236-1033-1 00 | | <input type="radio"/> |

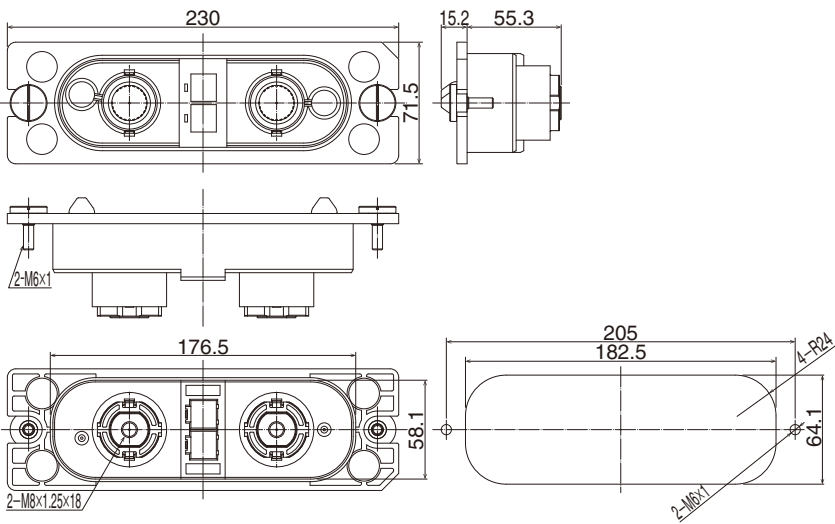
◇100A



◇200A



◇300A



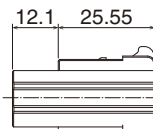
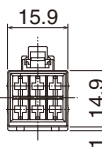
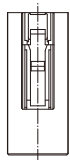
■Crimp Contact Housing

| Part No. | HRS No. | Sales Unit | RoHS |
|----------|---------------|------------|------|
| PS2-6PC | 236-1034-4 00 | 100 pieces | ○ |
| PS2-6SC | 236-1035-7 00 | | ○ |
| PS2-9PC | 236-1038-5 00 | | ○ |
| PS2-9SC | 236-1039-8 00 | | ○ |

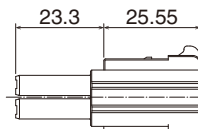
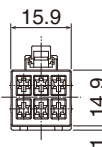
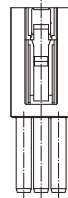
| Part No. | HRS No. | Sales Unit | RoHS |
|----------|---------------|------------|------|
| PS2-18PC | 236-1049-1 00 | 50 pieces | ○ |
| PS2-18SC | 236-1050-0 00 | | ○ |
| PS2-42PC | 236-1047-6 00 | | ○ |
| PS2-42SC | 236-1048-9 00 | | ○ |



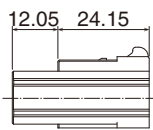
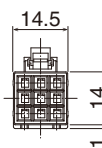
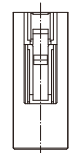
●PS2-6PC



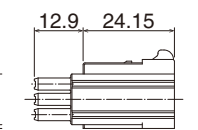
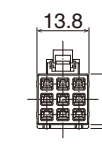
●PS2-6SC



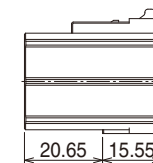
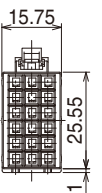
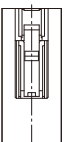
●PS2-9PC



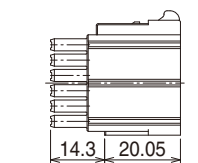
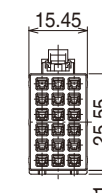
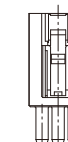
●PS2-9SC



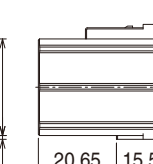
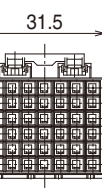
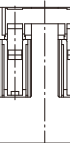
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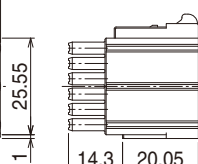
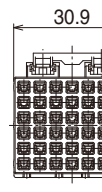
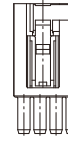
●PS2-18SC



●PS2-42PC



●PS2-42SC

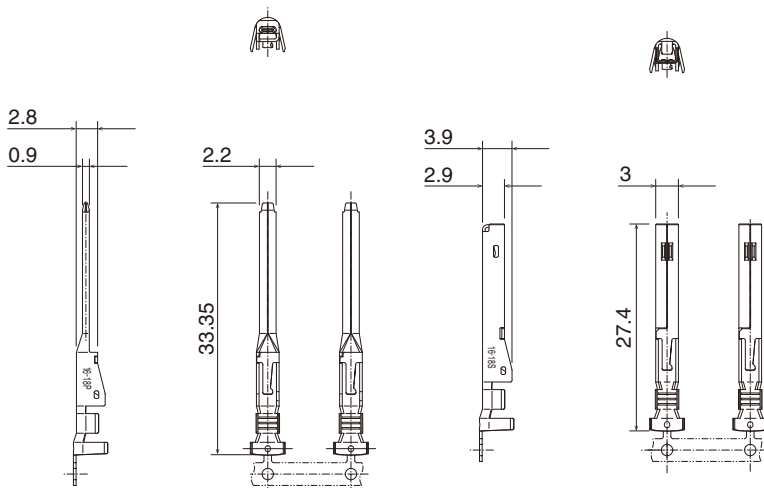


◆ Crimp Contact

| Parts No. | HRS No. | Packaging | RoHS |
|-----------------|---------------|---------------|------|
| PS2-1618PCFA | 236-1028-1 00 | 3,500pcs/reel | ○ |
| PS2-1618PCA | 236-1051-3 00 | 100pcs/pack | |
| PS2-1618SCFA | 236-1029-4 00 | 3,500pcs/reel | |
| PS2-1618SCA | 236-1052-6 00 | 100pcs/pack | |
| PQ50SA-1822PCFA | 236-2029-0 00 | 6,000pcs/reel | |
| PQ50SA-1822PCA | 236-2048-4 00 | 100pcs/pack | |
| PQ50SA-2428PCFA | 236-2030-9 00 | 6,000pcs/reel | |
| PQ50SA-2428PCA | 236-2049-7 00 | 100pcs/pack | |
| PQ50S-1822SCFA | 236-2026-1 00 | 6,000pcs/reel | |
| PQ50S-1822SCA | 236-2050-6 00 | 100pcs/pack | |
| PQ50S-2428SCFA | 236-2028-7 00 | 6,000pcs/reel | |
| PQ50S-2428SCA | 236-2051-9 00 | 100pcs/pack | |

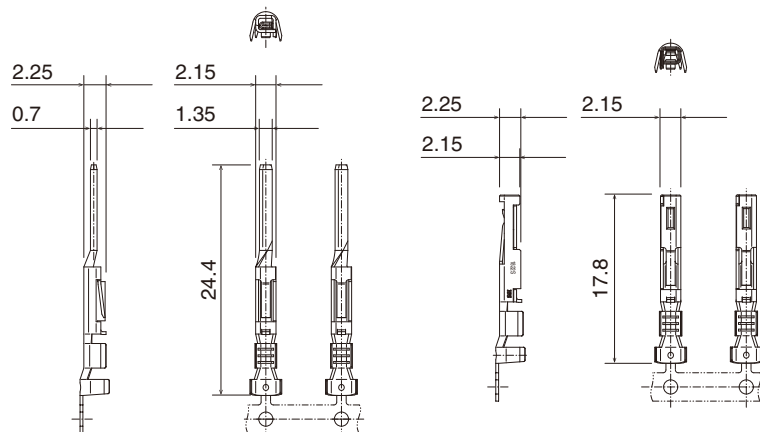
● PS2-1618PCFA

● PS2-1618SCFA



● PQ50SA-1822PCFA PQ50SA-2428PCFA

● PQ50S-1822SCFA PQ50S-2428SCFA



◆ Manual Crimp Tools

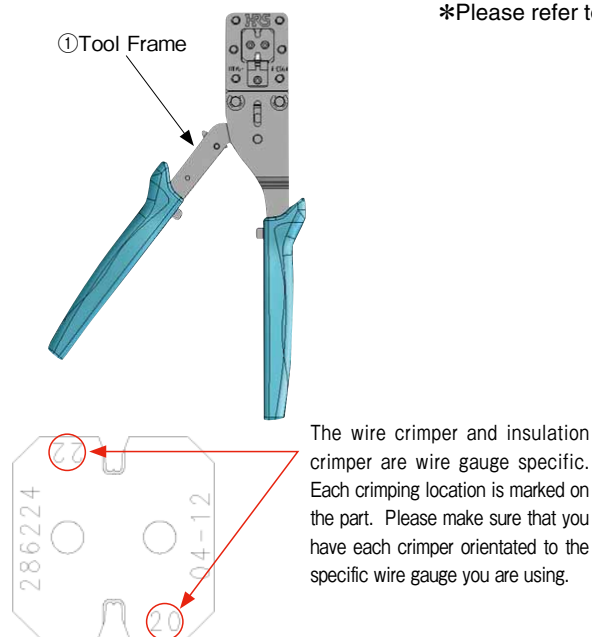
| Target product | ① Tool Frame Upper row : Part No. / Lower row : HRS No. | ※ Die set | | Applicable contacts | Applicable cables |
|------------------------|------------------------------------------------------------|-------------------|------------|----------------------------|-------------------|
| | | Part No. | HRS No. | | |
| 100A type 200A type | HT702 250-1001-1 | PQ50S-1820(1007) | 250-1010-2 | PQ50S-1822SCA | 18 AWG |
| | | PQ50S-2022(1007) | 250-1011-5 | | 20 AWG |
| | | | | | 22 AWG |
| | | PQ50SA-1820(1007) | 250-1012-8 | PQ50SA-1822PCA | 18 AWG |
| | | PQ50SA-2022(1007) | 250-1013-0 | | 20 AWG |
| | | | | | 22 AWG |
| | | PQ50S-2428(1007) | 250-1029-0 | PQ50S-2428SCA | 24 AWG |
| | | | | | 26 AWG |
| 300A type | | | | | 28 AWG |
| | | PQ50SA-2428(1007) | 250-1030-0 | PQ50SA-2428PCA | 24 AWG |
| | | | | | 26 AWG |
| | | | | | 28 AWG |
| | | PS2-1618(3385) | 250-1014-3 | PS2-1618PCA PS2-1618SCA | 18 AWG |

Manual Crimp Tools

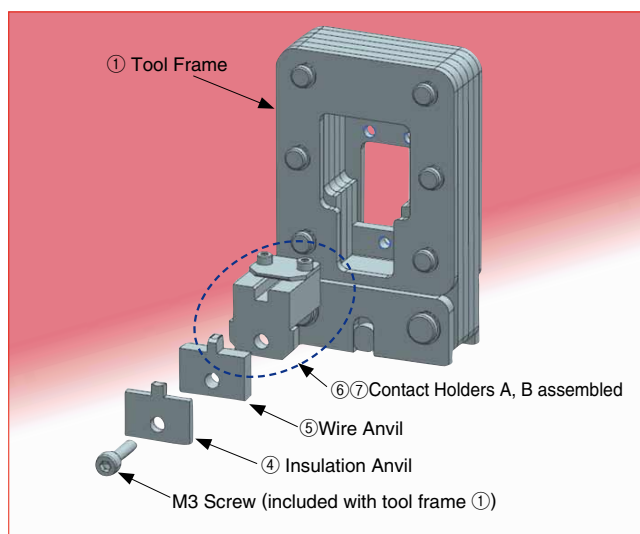
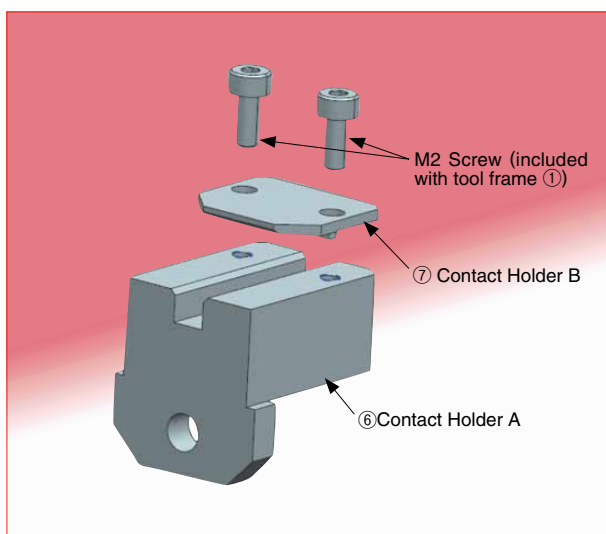
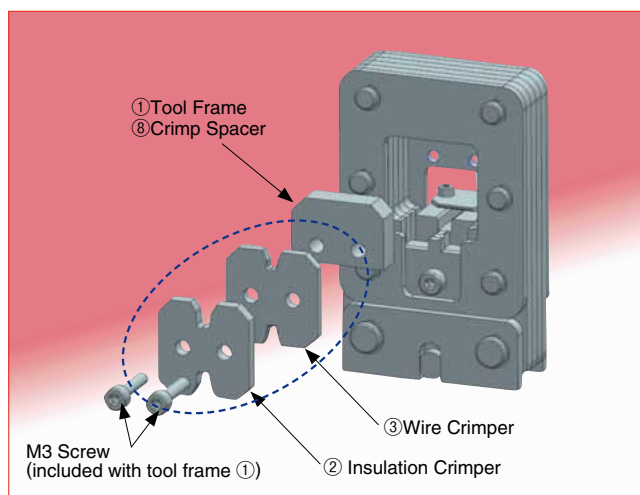
The Hirose hand tool for the PS2 series features replaceable die sets and parts. This allows you the ability to use one Hirose tool body and switch between the two Hirose die sets to crimp either of the PS2 terminals.

Due to wear, neglect or loss, replacement parts are also available for the Hirose die sets. Please see the chart at the bottom of page seven for these part numbers. Please be careful to select the correct replacement part based on the terminal and wire size you are trying to crimp. If you have any concern on the correct part to purchase, a Hirose sales representative will be glad to assist in selecting the correct part.

*Please refer to the bottom of page 8 and 9 for product numbers and descriptions.



| Part No. | HRS No. |
|----------|---------------|
| HT702 | 250-1001-1 00 |



Automatic Crimper

Please call us.

| Target product | Upper row : Part No. / Lower row : HRS No. | | | | | | | |
|------------------------|--------------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | ② IC Insulation Crimper | ③ WC (Wire Crimper) | ④ IA (Insulation Anvil) | ⑤ WA (Wire Anvil) | ⑥ Contact Holder A | ⑥ Contact Holder B | ⑦ Contact Holder C | ⑧ Crimper Spacer |
| 100A type 200A type | 286219 [250-1010-2(61)] | 286223 [250-1010-2(62)] | 286225 [250-1010-2(63)] | 286226 [250-1010-2(64)] | 286233 [250-1010-2(65)] | 286234 [250-1010-2(66)] | | 285996 [250-1010-2(67)] |
| | 286220 [250-1011-5(61)] | 286224 [250-1011-5(62)] | 286225 [250-1011-5(63)] | 286226 [250-1011-5(64)] | 286233 [250-1011-5(65)] | 286234 [250-1011-5(66)] | | 285996 [250-1011-5(67)] |
| | 286219 [250-1012-8(61)] | 286223 [250-1012-8(62)] | 286225 [250-1012-8(63)] | 286226 [250-1012-8(64)] | 286233 [250-1012-8(65)] | | 286235 [250-1012-8(66)] | 285996 [250-1012-8(67)] |
| | 286220 [250-1013-0(61)] | 286224 [250-1013-0(62)] | 286225 [250-1013-0(63)] | 286226 [250-1013-0(64)] | 286233 [250-1013-0(65)] | | 286235 [250-1013-0(66)] | 285996 [250-1013-0(67)] |
| | 286876 [250-1029-0(61)] | 286877 [250-1029-0(62)] | 286231 [250-1029-0(63)] | 286232 [250-1029-0(64)] | 286233 [250-1029-0(65)] | 286234 [250-1029-0(66)] | | 285996 [250-1029-0(67)] |
| | 286876 [250-1030-0(61)] | 286877 [250-1030-0(62)] | 286231 [250-1030-0(63)] | 286232 [250-1030-0(64)] | 286233 [250-1030-0(65)] | | 286235 [250-1030-0(66)] | 285996 [250-1030-0(67)] |
| 300A type | 286256 [250-1014-3(61)] | 285991 [250-1014-3(62)] | 285992 [250-1014-3(63)] | 285993 [250-1014-3(64)] | 286257 [250-1014-3(65)] | 286258 [250-1014-3(66)] | | 285996 [250-1014-3(67)] |

◆ Safety Standards Certifications (UL, C-UL, TÜV)

The PS3C, PS3CS series has received safety certifications from the UL, C-UL, and TÜV under the conditions provided in Table 1 and Table 2.

Table 1. Conditions for UL and C-UL

| | 100A Type Condition | 200A Type Condition |
|----------------------------|----------------------|------------------------|
| Rated Voltage (AC/DC) | 600V | |
| Rated Current | 100A | 200A |
| Cable | 38sq, 2 AWG (Note 1) | 80sq, 2/0 AWG (Note 1) |
| Creepage Distance (Note 2) | MIN : 3.2mm | |
| Clearance (Note 2) | MIN : 3.2mm | |

Table 2. Conditions for TÜV

| | 100A Type Condition | 200A Type Condition |
|----------------------------|---------------------------------------------|---------------------|
| Rated Voltage (AC/DC) | 1000V | |
| Rated Current | 100A | 200A |
| Cable | 38sq, 2 AWG | 80sq, 2/0 AWG |
| Overvoltage Category | III | |
| Contamination Level | 3 | |
| Creepage Distance (Note 2) | MIN : 16mm | |
| Clearance (Note 2) | MIN : 8mm | |
| Insulation System | Basic insulation (Panel should be grounded) | |

Note 1 : Use the crimp contact combination recommended below. The use of other crimp contacts can affect clearance and creepage distance.

If you choose to use a different contact combination, be sure to check the measurements for clearance and creepage. Make sure that these conditions will meet the UL, C-UL and TÜV.

• Recommended crimp contacts

Cable 38sq : NICHIFU R38-6

Cable 80sq : NICHIFU R80-8

Note 2 : Subjects of clearance and creepage distance are as follows.

- Between the power contacts.
- Between the signal contacts.
- Between power contact and signal contact.
- Between power contact and panel.
- Between signal contact and panel.

MEMO :

USA:

HIROSE ELECTRIC (U.S.A.), INC. HEADQUARTERS CHICAGO OFFICE
 2300 Warrenville Road, Suite 150,
 Downers Grove, IL 60515
 Phone : +1-630-282-6700
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. SAN JOSE OFFICE
 2841 Junction Ave, Suite 200
 San Jose, CA. 95134
 Phone : +1-408-253-9640
 Fax : +1-408-253-9641
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. DETROIT OFFICE (AUTOMOTIVE)
 17197 N. Laurel Park Drive, Suite 253,
 Livonia, MI 48152
 Phone : +1-734-542-9963
 Fax : +1-734-542-9964
<http://www.hirose.com/us/>

THE NETHERLANDS:

HIROSE ELECTRIC EUROPE B.V.
 Hogehillweg #8 1101 CC Amsterdam Z-O
 Phone : +31-20-6557460
 Fax : +31-20-6557469
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. GERMAN BRANCH
 Schoenbergstr. 20, 73760 ostfildern
 Phone : +49-711-456002-1
 Fax : +49-711-456002-299
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. NUREMBERG OFFICE
 Neumeyerstrasse 22-26, 90411 Nurnberg
 Phone : +49-911 32 68 89 63
 Fax : +49-911 32 68 89 69
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. HANOVER OFFICE
 Bayernstr. 3, Haus C 30855 Langenhagen, Germany
 Phone : +49-511 97 82 61 30
 Fax : +49-511 97 82 61 35
<http://www.hirose.com/eu/>

FRANCE:

HIROSE ELECTRIC EUROPE B.V. PARIS OFFICE
 Regus La Garenne Colombes, Place de La Belgique,
 71 Boulevard National La Garenne Colombes, 92250, France
 Phone : +33 (0) 1 7082 3170
 Fax : +33 (1) 7082 3101
<http://www.hirose.com/eu/>

UNITED KINGDOM:

HIROSE ELECTRIC EUROPE BV (UK BRANCH)
 4 Newton Court, Kelvin Drive, Knowlhill,
 Milton Keynes, MK5 8NH
 Phone : +44-1908 202050
 Fax : +44-1908 202058
<http://www.hirose.com/eu/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO., LTD.
 1601, Henderson Metropolitan, NO.300, East Nanjing
 Road, Huangpu District, Shanghai, China 200001
 Phone : +86-21-6391-3355
 Fax : +86-21-6391-3335
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO., LTD. BEIJING BRANCH
 A1001, Ocean International Center, Building 56# East 4th
 Ring Middle Road, ChaoYang District, Beijing, 100025
 Phone : +86-10-5165-9332
 Fax : +86-10-5908-1381
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC TECHNOLOGIES (SHENZHEN) CO., LTD.
 Room 09-13, 19/F, Office Tower Shun Hing Square, Di Wang Commercial Centre,
 5002 Shen Nan Dong Road, Shenzhen City, Guangdong Province, 518008
 Phone : +86-755-8207-0851
 Fax : +86-755-8207-0873
<http://www.hirose.com/cn/>

HONG KONG:

HIROSE ELECTRIC HONGKONG TRADING CO., LTD.
 Room 1001, West Wing, Tsim Sha Tsui Centre, 66
 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong
 Phone : +852-2803-5338
 Fax : +852-2591-6560
<http://www.hirose.com/hk/>

TAIWAN:

HIROSE ELECTRIC TAIWAN CO., LTD.
 103 8F, No.87, Zhengzhou Rd., Taipei
 Phone : +886-2-2555-7377
 Fax : +886-2-2555-7350
<http://www.hirose.com/tw/>

KOREA:

HIROSE KOREA CO., LTD.
 250, Huimanggongwon-ro, Siheung-si,
 Gyeonggi-do, Korea, 15083
 Phone : +82-31-496-7000 or 7124
 Fax : +82-31-496-7100
<http://www.hirose.co.kr/>

SINGAPORE:

HIROSE ELECTRIC SINGAPORE PTE. LTD.
 10 Anson Road #26-16, International Plaza
 079903, Singapore
 Phone : +65-6324-6113
 Fax : +65-6324-6123
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. DELHI LIAISON OFFICE
 Office NO.552, Regus-Green Boulevard, Level5, Tower C,
 Sec62, Plot B-9A, Block B, Noida, 201301, Uttar Pradesh, India
 Phone : +91-12-660-8018
 Fax : +91-120-4804949
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. BANGALORE LIAISON OFFICE
 Unit No-403, 4th Floor, No-84, Barton Centre, Mahatma
 Gandhi (MG) Road, Bangalore 560 001, Karnataka, India
 Phone : +91-80-4120 1907
 Fax : +91-80-4120 9908
<http://www.hirose.com/sg/>

MALAYSIA:

PENANG REPRESENTATIVE OFFICE
 1-21-01, Suntech @ Penang Cybercity (1164), Lintang
 Mayang Pasir 3, 11950, Bayan Baru, Penang, Malaysia.
 Phone : +604-619-2564
 Fax : +604-619-2574
<http://www.hirose.com/sg/>

THAILAND:

BANGKOK OFFICE (REPRESENTATIVE OFFICE)
 Unit 4703, 47th FL., 1 Empire Tower, South Sathorn
 Road, Yannawa, Sathorn, Bangkok 10120 Thailand
 Phone : +66-2-686-1255
 Fax : +66-2-686-3433
<http://www.hirose.com/sg/>



HIROSE ELECTRIC CO., LTD.

2-6-3, Nakagawa Chuoh, Tsuzuki-Ku, Yokohama-Shi 224-8540, JAPAN
 TEL: +81-45-620-3526 Fax: +81-45-591-3726
<http://www.hirose.com>
<http://www.hirose-connectors.com>